What is claimed is:

1. In an implantable medical device of the type including a sense amplifier that detects cardiac signals associated with intrinsic depolarizations of a heart chamber that exceed a sensing threshold for use detection of a tachyarrhythmia episode, a method comprising:

upon satisfaction of at least one pre-detection criteria associated with potential detection of a tachyarrhythmia episode, measuring the peak amplitude of the cardiac signal; and

storing one or more of the measured peak amplitude of the cardiac signal for subsequent diagnostic uses.

2. The method of Claim 1, wherein a diagnostic use comprises adjusting the sensing threshold to a level related to the measured peak amplitudes to assure sensing of cardiac signals having diminished peak amplitudes during tachyarrhythmia episodes.

3. The method of Claim 2, wherein the implantable medical device further includes the capability of delivering at least one anti-tachyarrhythmia therapy to the heart chamber upon satisfaction of detection criterion for a tachyarrhythmia episode.

4. The method of Claim 1, wherein the implantable medical device further includes the capability of delivering at least one anti-tachyarrhythmia therapy to the heart chamber upon satisfaction of detection criterion for a tachyarrhythmia episode.

5. The method of Claim 1, further comprising:

comparing the amplitude of the cardiac signal to the sensing threshold and issuing a sense event signal when the cardiac signal amplitude meets the sensing threshold; and

processing sense event signals in relation to at least one pre-detection criteria associated with potential detection of a tachyarrhythmia episode.

6. The method of Claim 5, wherein a diagnostic use comprises adjusting the sensing threshold to a level related to the measured peak amplitudes to assure sensing of cardiac signals having diminished peak amplitudes during tachyarrhythmia episodes.

7. In an implantable medical device of the type that includes a sense amplifier that detects cardiac signals associated with intrinsic depolarizations of a heart chamber that exceed a sensing threshold for use detection of a tachyarrhythmia episode, a method comprising:

upon satisfaction of at least one detection criteria associated with a tachyarrhythmia episode, measuring the peak amplitude of the cardiac signal; and

storing one or more measured peak amplitude of the cardiac signal for subsequent diagnostic uses.

8. The method of Claim 7, wherein a diagnostic use comprises adjusting the sensing threshold to a level related to the measured peak amplitudes to assure sensing of cardiac signals having diminished peak amplitudes during tachyarrhythmia episodes.

9. The method of Claim 8, wherein the implantable medical device further includes the capability of delivering at least one anti-tachyarrhythmia therapy to the heart chamber upon satisfaction of the at least one detection criteria for a tachyarrhythmia episode.

10. The method of Claim 7, wherein the implantable medical device further includes the capability of delivering at least one anti-tachyarrhythmia

therapy to the heart chamber upon satisfaction of the at least one detection criteria for a tachyarrhythmia episode.

11. The method of Claim 10, further comprising:

comparing the amplitude of the cardiac signal to the sensing threshold and issuing a sense event signal when the cardiac signal amplitude meets the sensing threshold; and

processing sense event signals in relation to at least one detection criterion associated with potential detection of a tachyarrhythmia episode.

12. The method of Claim 11, wherein a diagnostic use comprises adjusting the sensing threshold to a level related to the measured peak amplitudes to assure sensing of cardiac signals having diminished peak amplitudes during tachyarrhythmia episodes.

13. In an implantable medical device of the type that includes a sense amplifier that detects cardiac signals associated with intrinsic depolarizations of a heart chamber that exceed a sensing threshold for use detection of a tachyarrhythmia episode, a system comprising:

means for measuring the peak amplitude of the cardiac signal upon satisfaction of at least one pre-detection criteria associated with potential detection of a tachyarrhythmia episode; and

means for storing one or more measured peak amplitude of the cardiac signal for subsequent diagnostic uses.

14. The system of Claim 13, wherein a diagnostic use comprises adjusting the sensing threshold to a level related to the measured peak amplitudes to assure sensing of cardiac signals having diminished peak amplitudes during tachyarrhythmia episodes.

15. The system of Claim 14, wherein the implantable medical device further includes the capability of delivering at least one anti-tachyarrhythmia therapy to the heart chamber upon satisfaction of detection criterion for a tachyarrhythmia episode.

16. The system of Claim 13, wherein the implantable medical device further comprises means for delivering at least one anti-tachyarrhythmia therapy to the heart chamber upon satisfaction of detection criterion for a tachyarrhythmia episode.

17. The system of Claim 13, further comprising:

means for comparing the amplitude of the cardiac signal to the sensing threshold and issuing a sense event signal when the cardiac signal amplitude meets the sensing threshold; and

means for processing sense event signals in relation to at least one pre-detection criteria associated with potential detection of a tachyarrhythmia episode.

18. The system of Claim 17, wherein a diagnostic use comprises adjusting the sensing threshold to a level related to the measured peak amplitudes to assure sensing of cardiac signals having diminished peak amplitudes during tachyarrhythmia episodes.

19. In an implantable medical device of the type that includes a sense amplifier that detects cardiac signals associated with intrinsic depolarizations of a heart chamber that exceed a sensing threshold for use detection of a tachyarrhythmia episode, a system comprising:

means for measuring the peak amplitude of the cardiac signal upon satisfaction of at least one detection criteria associated with a tachyarrhythmia episode; and

means for storing one or more measured peak amplitude of the cardiac signal for subsequent diagnostic uses.

20. The system of Claim 19, wherein a diagnostic use comprises adjusting the sensing threshold to a level related to the measured peak amplitudes to assure sensing of cardiac signals having diminished peak amplitudes during tachyarrhythmia episodes.

21. The system of Claim 20, wherein the implantable medical device further comprises means for delivering at least one anti-tachyarrhythmia therapy to the heart chamber upon satisfaction of the at least one detection criteria for a tachyarrhythmia episode.

22. The system of Claim 19, wherein the implantable medical device further comprises means for delivering at least one anti-tachyarrhythmia therapy to the heart chamber upon satisfaction of the at least one detection criteria for a tachyarrhythmia episode.

23. The system of Claim 22, further comprising:

means for comparing the amplitude of the cardiac signal to the sensing threshold and issuing a sense event signal when the cardiac signal amplitude meets the sensing threshold; and

means for processing sense event signals in relation to at least one detection criterion associated with potential detection of a tachyarrhythmia episode.

24. The system of Claim 23, wherein a diagnostic use comprises adjusting the sensing threshold to a level related to the measured peak amplitudes to assure sensing of cardiac signals having diminished peak amplitudes during tachyarrhythmia episodes.